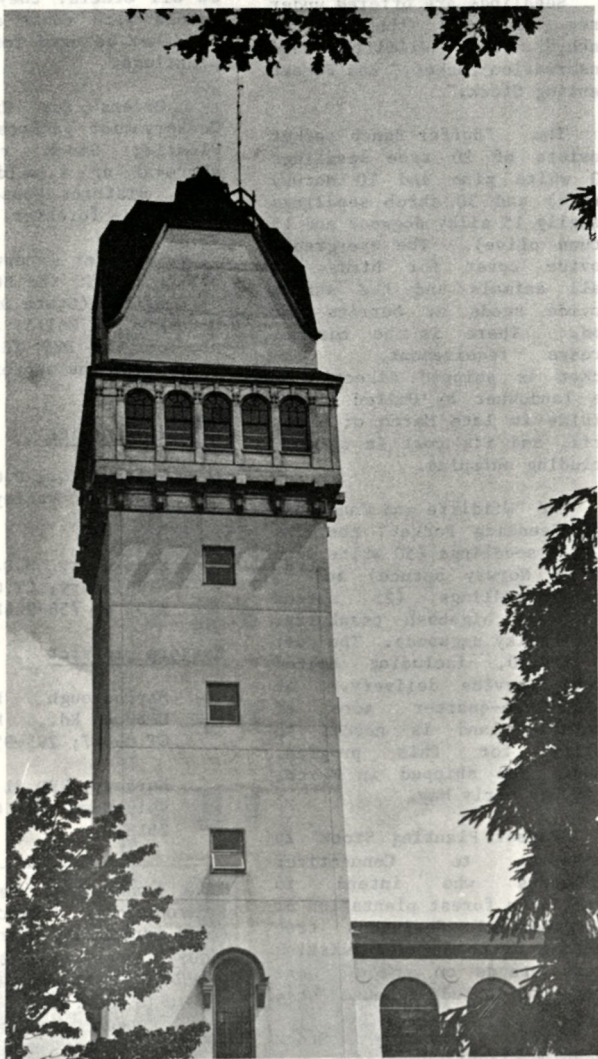


# Citizens' Bulletin

Volume 9 Number 3 November 1981 \$3/yr.

The Connecticut Department of Environmental Protection



'One of New England's  
finest vantage points'

CONN. COLLEGE LIBRARY

JAN 14 '82

LONDON, CONN.

Conn. Documents

# Citizens' Bulletin

Volume 9 Number 3

November 1981

\$3/yr.

## Contents

- 2 Seedlings on sale!
- 3 Tale of four towers
- 7 Watching a watershed
- 10 FRWA's spill plan
- 14 On the nature trail
- 16 Important Farmlands
- 18 Office paper recycling
- 20 Bear foster care
- 24 Trailside Botanizing

Commissioner  
Stanley J. Pac

Director Info & Ed  
William Delaney

Editor  
Margot Callahan

Graphics  
Rosemary Gutbrod

Composition  
Audrey Verrengia

Circulation  
Helen Moriarty - 566-5524

DEP Citizens' Bulletin  
(USPS 041-570)

Published eleven times a year by the Department of Environmental Protection. Yearly subscription \$3.00; two years, \$5.00. 2nd class postage paid at Hartford, Connecticut. Funds are also provided through a federal grant from the Office of Coastal Zone Management under the Coastal Zone Management Act of 1972. Please forward any address change immediately.

Material may be reprinted without permission provided credit is given, unless otherwise noted. Address communications to Ed., DEP Citizens' Bulletin, Dept. of Environmental Protection, Rm. 112, State Office Bldg., Hartford, CT 06115.

## Order your seedlings now!

Again this year, Connecticut landowners have the opportunity to purchase tree and shrub seedlings for reforestation, wildlife habitat improvement, Christmas tree plantings, erosion control, or other conservation purposes.

"To guarantee availability, however, orders should be placed as soon as possible," says State Forester Robert L. Garrepy, "since many species sell out very quickly."

Seedlings are offered under three programs: the "Buffer Bunch," the Wildlife and Conservation Packet," and "Forest Planting Stock."

The "Buffer Bunch" packet consists of 20 tree seedlings (10 white pine and 10 Norway spruce) and 30 shrub seedlings (usually 15 silky dogwood and 15 autumn olive). The evergreens provide cover for birds and small animals and the shrubs provide seeds or berries for food. There is no minimum acreage requirement. The packet is shipped directly to the landowner by United Parcel Service in late March or early April, and its cost is \$10.00, including shipping.

The "Wildlife and Conservation Seedling Packet" contains 75 tree seedlings (50 white pine and 25 Norway spruce) and 75 shrub seedlings (25 autumn olive, 25 highbush cranberry, and 25 silky dogwood). The cost is \$19.00, including United Parcel Service delivery. At least one-quarter acre of plantable land is needed to qualify for this program. Packets are shipped in March, April, or early May.

"Forest Planting Stock" is available to Connecticut landowners who intend to establish a forest plantation or a commercial Christmas tree planting or to augment existing forest stands on one or more acres (not including house lot).

Forest Planting Stock orders for conifer species must be in multiples of 250, and the

cost is \$48.00 per 1,000 trees. These seedlings will be shipped to one of 10 delivery points in the State in April or May, and the landowner will be notified by postcard when the order may be picked up.

"While most people consider fields and other open spaces as logical planting sites," Garrepy says, "it is estimated that nearly 100,000 acres of existing forest land in the State would benefit from underplanting of various species of conifers."

Two restrictions are placed on all orders: they may not be resold with roots attached nor may they be used for ornamental plantings.

Orders for Wildlife and Conservation packets and Forest Planting Stock require the approval of a wildlife biologist, district conservationist, or service forester.

To order landowners should write or call the State Forester's Office (State Office Bldg., Hartford, CT 06115; 566-5348) or one of the DEP field offices listed for the appropriate order form.

### Western District

Valley H.Q., P.O. Box 161,  
Pleasant Valley, CT 06063;  
379-0771.

Middlebury H.Q., Rt. 63,  
Middlebury, CT 06762; 758-  
1753 or 758-9248.

### Eastern District

Marlborough H.Q., 209  
Hebron Rd., Marlborough,  
CT 06447; 295-9523.

Nursery, RFD #1, Box 23A,  
Voluntown, CT 06384; 376-  
2513.

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical handicap, national origin, ancestry, marital status or political beliefs."

# Talcott Mountain's towers: elegance, horse-trading, and a glorious view

By John Waters

## Towers

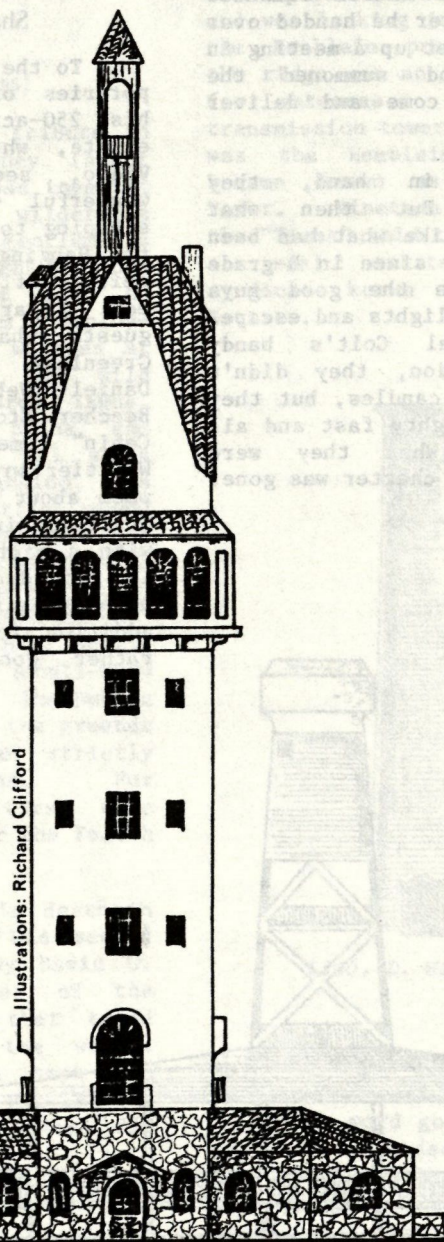
For more than 180 years, a succession of towers has perched on a ridge that is 960 feet above sea level where it runs through Talcott Mountain State Park in Simsbury, Avon, and Bloomfield. Differing in name and belonging to different owners, the towers have provided one of New England's finest vantage points for viewing a glorious panorama of autumn foliage and landscapes as far away (83 miles) as Mt. Monadnock in New Hampshire and the Connecticut and Massachusetts Berkshires.

## Tale of four towers

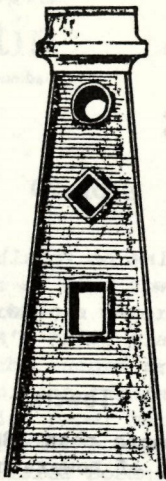
The present tower is the fourth and tallest -- 165 feet high. Built of concrete in 1915 to stand up to 100-mile-an-hour gales, it was called the Heublein Tower until 1943, when the Hartford "Times" bought it and the land for \$70,000. Then it became the Times Tower and retained that name even after the paper sold it to a real estate syndicate for \$300,000 in 1962.

After almost five years of haggling over price, the syndicate sold the property to the State for \$500,000 in 1966. The State renamed it Heublein Tower.

Tower No. 3, which was 65 feet high, was built of wood by Matthew Barlett and Charles A. Kellogg in 1867, on property just north of where Tower No. 2 had stood. (Bartlett not only built a residence adjacent to the tower; he also built a second wooden tower, 70 feet high, five and one-half miles to the north of the first site.



Present tower, 1915, G.F. Heublein



1867,

M.H. Bartlett & C.A. Kellogg

This tower, with a pavillion at its base, was south of Tariffville Gorge and Rt. 189 and lacked a view to the south.) When Gilbert F. Heublein bought the land in 1914, he tore down Bartlett's ridge-top tower and built his own, a tower inspired by a medieval mill in Dinkelsbühl, Germany.

#### Two-tower Wadsworth

The tower that preceded Bartlett's was the second of two erected by Hartford's richest man and art patron: Daniel Wadsworth, who gave Hartford the Athenaeum. Built of wood in 1840 and 65 feet high, it burned down in 1864. Wadsworth's first tower, also wood, was hexagonal and 55 feet high. Built in 1810, it blew down in 1840. It was the showpiece of his mountain-top country estate.

Wadsworth's choice of Talcott Mountain for what may have been the first millionaire's country estate in America was singularly appropriate. A

hundred and twenty-three years earlier, an ancestor named Joseph Wadsworth had fled to the mountain to hide in its caves and escape arrest by the troops of Royal Governor Edmond Andros -- a hero in the drama of the Charter Oak incident of 1687.

#### Tavern in the town

The incident grew out of the fact that England's "Merry Monarch," King Charles II, had granted Connecticut Colony a very generous charter that defined its boundaries essentially as they are today. But in the reign of King James II, two years after Charles died, Royal Governor Andros demanded that the charter be handed over to him. He set up a meeting in a tavern and summoned the colonists to come and deliver the charter.

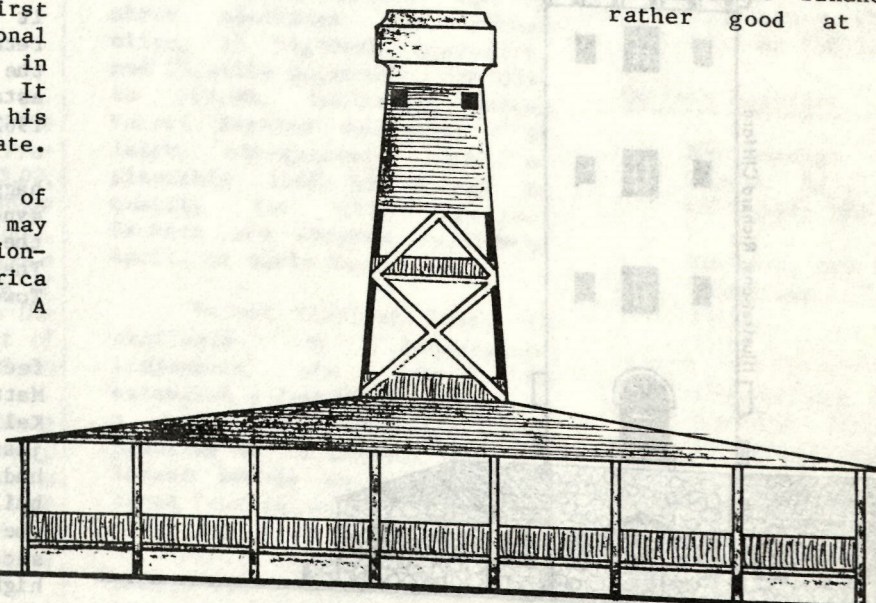
Charter in hand, they attended. But then what happened was like what has been happening ever since in B-grade westerns where the good guys shoot out the lights and escape. Lacking Samuel Colt's handy little invention, they didn't shoot out the candles, but they doused them mighty fast and all at once. When they were relighted, the charter was gone.

It had disappeared into the hands of young Joe Wadsworth, who had been planted outside the tavern window. Joe raced with it to the home of Samuel Wyllys, where there was a ribbonless but very large oak tree. The rest is history.

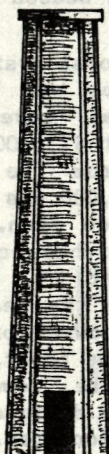
Having saved the charter, Joe took off at high speed for Talcott Mountain, where he hid for days in a gorge called the Hell Hole and in Indian King Philip's Cave, which was 15 feet deep and 20 feet down the face of the cliff. The Redcoat couldn't find him, and the charter was safe in the Charter Oak.

#### Shangri-la west

To the 19th Century contemporaries of Daniel Wadsworth, his 250-acre Talcott Mountain estate, which he named Monte Video, seemed at least as wonderful -- with its cloud-scraping tower -- as Camelot or the Hanging Gardens of Babylon, neither of which any had visited. A parade of distinguished guests, that included poet John Greenleaf Whittier, orator Daniel Webster, and Harriet Beecher Stowe of "Uncle Tom's Cabin" fame, sang its praises. Whittier wrote a rather lengthy poem about it; and in England, Staffordshire china appeared with a picture of the tower on it, reproduced from an engraving made by Daniel Wadsworth, who in addition to financing art was rather good at it himself.



1889, M.H. Bartlett



1810, D. Wadsworth

Ah, wilderness!

All this was a tribute to the effort and money (about \$175,000) Wadsworth had invested to turn a primitive wilderness into a magnificent gentleman's estate. He had bought up more than 50 parcels of land to assemble the 250 acres. Employing as many as 100 workmen at times, he turned the wild country into manicured lawns, graveled serpentine paths, and delightful roads -- all as a setting for his mansion, his tower, and his beautiful mountain lake. Carriages were not allowed closer to the mansion than the lodge at the entrance, where there was a "parking lot" with plenty of hitching posts. From there, it was a half-mile walk to the mansion. The public was allowed to visit the grounds and tower, but under strictly specified conditions. For example, no visitors were allowed on Sundays or the Fourth of July.

After Wadsworth's death in 1848, his land and his second tower were bought by David C. Collins, manufacturer of the axes and machetes that tamed jungles all over the world. Like Wadsworth, he kept the property open to the public, but some of the later owners did not.

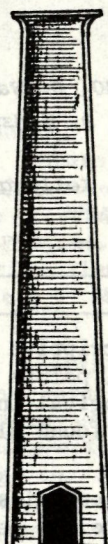
Home in the sky

Skipping to the Heublein era, we find that a fieldstone

country house was added after the tower's completion. For more than 30 years, the family occupied six floors of the tower as well as the house. The sixth floor's 20 large, arched windows served as their observation gallery. To make sure the tower would not blow down, Gilbert Heublein sank its steel frame into 10 feet of bedrock. He built well, and the tower has stood up to everything Nature has thrown at it, including the superhurricane of 1938.

"Times" tower

The Hartford "Times," which also operated Radio Station WHTT and was looking into TV, bought the Heublein property because the ridge was an ideal location for antennas. It built a transmission tower there, but it was the Heublein Tower that became known as the "Times" Tower. Nineteen years later, the "Times" sold the property to a real estate investment syndicate known as Times Tower Estates.



1840, D. Wadsworth

Tower threatened

When word got out that the syndicate intended to get rid of the tower and break the ridge-top property into expensive residential estates, the public's outcry against what it considered desecration was

instantaneous and loud. Conservationists were aghast; and the State was urged by the capitol region's planning agency to buy the property for a park and nature preserve.

That wasn't what the syndicate had in mind. So when feelers were put out about selling to the State, the syndicate's opener price was a whopping \$750,000 for property that had cost it only \$300,000. At that time, the Commissioner of Agriculture and Natural Resources was responsible for parks, and Commissioner Joseph Gill countered with a bid in the \$300,000 range.

Horse trading

Back-and-forth horse-trading over a period of four years brought the asking price down to \$550,000. The State tried to force the price lower by saying all it wanted was the land without the tower. The syndicate's answer was "all or nothing." The State then pointed out that because the syndicate had not kept the caretakers, at least \$35,000 worth of damage from vandalism would have to be repaired so it could not bid more than \$450,000.

This was unacceptable, and the syndicate attempted an end run by petitioning the Simsbury Zoning Commission for a zone change that would let the tower be developed as a restaurant and office building. Before the petition could be considered at a hearing, the State upped its bid to \$500,000 -- provided that most of the money could be raised by friendly conservation organizations, public-spirited citizens, and perhaps a federal grant.

A cliff-hanger

Impatient at the long delay, the syndicate -- in the midsummer of 1966 -- issued an ultimatum: get up the \$500,000 and sign a purchase agreement by October 1, 1966, or all bets are off.

Inasmuch as the State Legislature, in 1965, had

approved only \$192,000 as the State's share of such a purchase, the remaining \$308,000 had to be obtained in the form of pennies from Heaven. . .and they had to materialize in less than three months in order to meet the syndicate's deadline!

#### To the rescue!

As has so often happened in the history of the State's park system, interested and kind-hearted citizens' groups rallied to raise the money. Among the

rescuers were the Hartford Foundation for Public Giving, the Farmington River Watershed Association, and the Connecticut Forest and Park Association's 44-member Save Talcott Mountain Committee, composed of Hartford's most influential citizens. By an odd coincidence, Save Talcott Mountain's chairman was Buist M. Anderson, who was vice-president and general counsel of the Connecticut General Life Insurance Company, which only last month donated \$1,000 to keep Heublein Tower

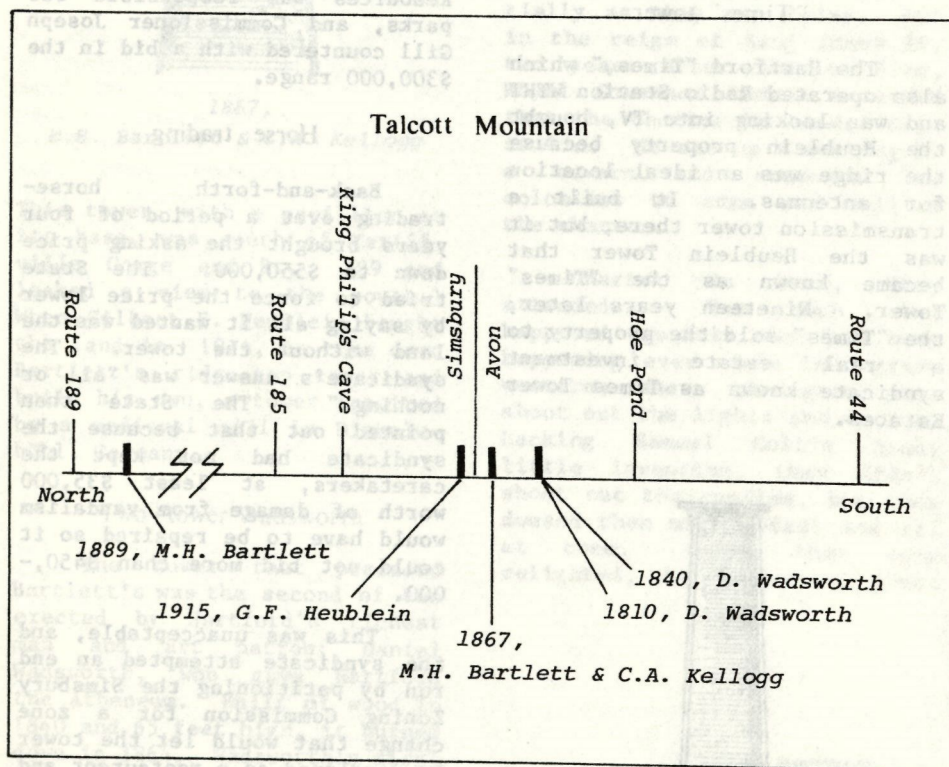
open on Saturdays and Sundays of the foliage season until November 1.

The total raised by all these groups was \$100,000 and the federal government came through with \$235,000. Added to \$165,000 from the State, the needed \$500,000 was available -- but none too soon. The money for the purchase changed hands on September 29, 1966 -- two days before the deadline. The State, now owner of the 354.13 acres and the tower, changed the name of the tower back to Heublein and designated the park a conservation area.

#### Slow restoration

A tremendous job of repair and restoration required an outlay of \$277,000 in 1973 money, and the tower was reopened in June 1974. There is also plenty to do and see in the park itself. For example, Metacomet trail runs through it; and deer, foxes, rabbits, turkey vultures, bald eagles, and pileated woodpeckers may be sighted by nature lovers not busy admiring the park's trout lilies, trilliums, wood anemones, and Dutchman's breeches.

There are picnic tables, fireplaces, and toilets. Admission is free. Take State 185 to Summit Drive near the Simsbury-Bloomfield line. The tower is about a mile and a quarter along a foot trail. The park draws more than 50,000 visitors a year. ■



#### Walk Book in 13th Edition

John E. Hibbard, Secretary-Forester of the Connecticut Forest and Park Association, Inc., announces that the 13th Edition of the "Connecticut Walk Book" is now available. The book was first published by the Association in 1937. The 13th Edition is dedicated to Seymour R. Smith of Watertown in recognition of his many years of service in maintaining trails in Connecticut.

The 13th Edition of the "Connecticut Walk Book," a complete guide to more than 500 miles of the Blue Blazed Trail System and a book which hikers have relied on for many years,

contains descriptive information about trails, points of historical and geological interest, and scenic views found along the trails.

It also contains thirty maps which indicate the location of the blue blazed trails throughout the state. Descriptions and maps of the 13th Edition are updated and revised to show trail locations at date of publication. In addition new trails such as the Chatfield Trail in Killingworth, the Ragged Mountain Memorial Preserve trails, and new trails at Cockaponset State Forest are included.

Volunteer trailsmen develop and maintain the Blue Blazed

Trail System which has been sponsored and co-ordinated by the Connecticut Forest and Park Association since 1929. The section of the Appalachian Trail is maintained by the Connecticut Chapter of the Appalachian Mountain Club. Hiking clubs, outing clubs, conservation commissions, and many dedicated individuals co-operate with the Association in its trail work. These volunteers spent over 3,000 hours on volunteer trails work in 1980.

The publication is available at \$8.25 per copy, including sales tax and handling, from the Connecticut Forest and Park Association, Inc., P.O. Box 389, East Hartford, CT 06108. ■

# FRWA acts as "watchdog" of the watershed

*By Audrey Handelman, Environmental Intern*

The Farmington River Watershed Association, Inc., (FRWA) is a nonprofit membership corporation which was organized in 1953 by a group of Farmington valley residents disturbed by the worsening condition of the Farmington River. Concerning itself with the entire Farmington River watershed from Becket, Massachusetts, to Windsor, Connecticut--about 600 square miles of land in both states--FRWA has always worked to protect and improve the environment, by fighting to clean up the Farmington River, to improve flood control, and to outlaw pesticide spraying as well as by contributing to the State's salmon and shad restoration programs.

FRWA membership numbers close to 1,000, of which over 100 are corporate donors; FRWA staff consists of Executive Director Ronald A. Pfeffer, Administrative Assistant

Dolores Jencik, and Sandra Bisset, an intern under the Environmental Intern Program who is in charge of FRWA's Hazardous Substances Program. There is also an active 21-member board of directors which meets monthly.

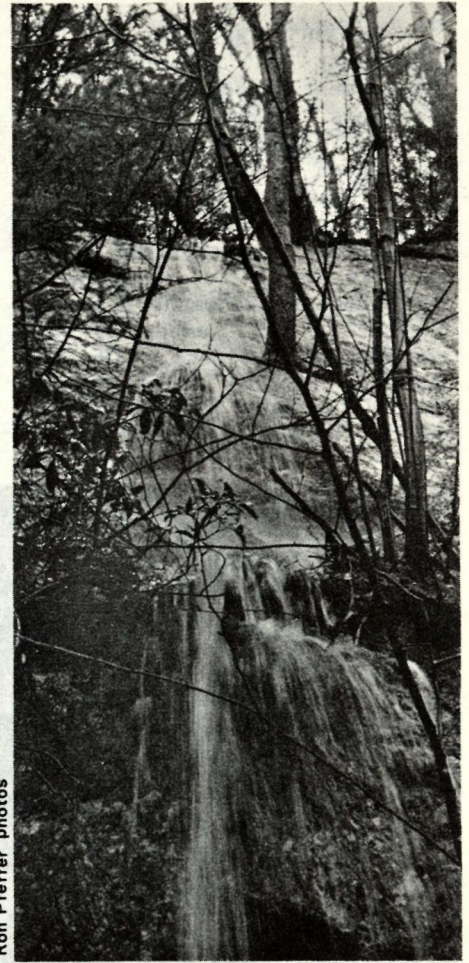
Pfeffer explains the large percentage of corporate donors, which may seem unusual in an environmentally-oriented group, by pointing to FRWA's long-standing reputation and its interest in issues of concern to business and government as well as to individuals. "In establishing a 'grass roots' environmental movement," he says, "we were way ahead of other groups."

The organization's purposes, as expressed in its 1953 charter, are threefold. One important goal has been to protect and enhance the environment. In 1955, when floods took many lives and destroyed many

homes, businesses, industries, and much other property, FRWA played an important part in the multi-agency effort to restore the damaged areas. But FRWA works to prevent problems, rather than merely reacting to them once they have occurred. A difficulty with the 1955 floods was that nobody had known what the Farmington River and its tributaries were going to do until it was too late. To prevent recurrences of the devastating flooding, the National Weather Service, with FRWA's support and assistance, established a New England River Forecast Center at Bradley Field, to make possible early flood warnings. FRWA has also worked to get towns to enact flood plain control. By properly zoning flood-prone areas, it is possible to greatly reduce the risk of damage and destruction to property and danger to life.

Ron Pfeffer photos

*Early spring runoff at Satan's Kingdom.*

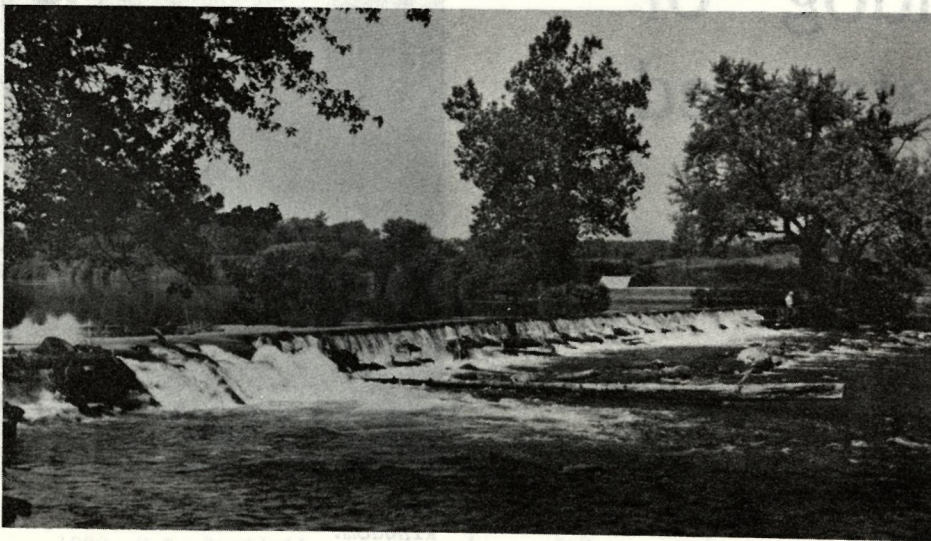


In 1965, FRWA continued its commitment to preserving the environment by commissioning the Travelers Research Center to make an in-depth study of the Farmington River Watershed area. The study, on which the Connecticut Water Resources Commission collaborated, was made in order to recommend a long-range development plan for the area. A number of the recommended projects, like the building of the Colebrook dam and the fishway at the Rainbow Dam in Poquonock, have already

charging raw sewage into the river take corrective measures, and 33 industrial polluters had been identified for remedial action. In 1965, three of FRWA's directors served as members of the 100-citizen-member Clean Water Task Force appointed by Governor John Dempsey and charged with evolving a program under which the waters of the entire state could be returned to a usable state. Since then, FRWA has generated support for solid-waste management programs, such



Tariffville Races 1981 attracted boaters from all over the U.S. and Canada.



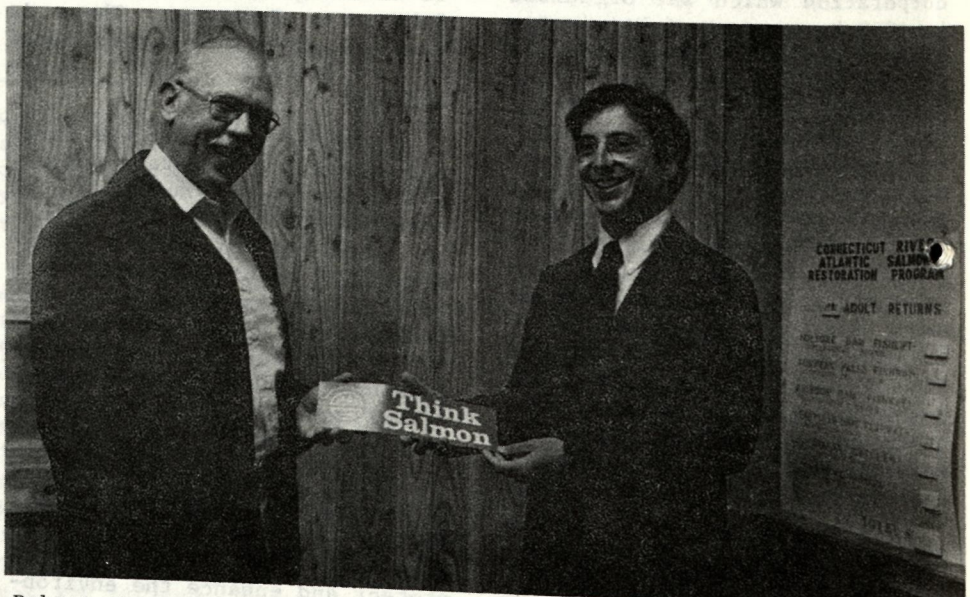
Dam at the Gristmill in Farmington is the only Farmington River dam currently fitted for small scale hydroelectric power generation.

been completed. The \$65,000 study, made possible by a grant from the Hartford Foundation for Public Giving, represents FRWA's attempt to deal with environmental problems on a long-term, comprehensive level rather than a fragmented, crisis-by-crisis basis.

as non-polluting incinerators and recycling stations, as well.

FRWA became concerned about the development and widespread use of DDT as a pesticide and led opposition to aerial application of the pesticide, working with the Connecticut Forest and Park Association in 1963 to organize a seminar on pesticide hazards and establish the Connecticut State Board of Pesticide Control. "Our interest does not end at the riverbank," Pfeffer comments, and the past actions of FRWA confirm that statement.

In addition, since its formation, FRWA has waged war on pollution and pesticide contamination. One of the organization's first major tasks was to encourage the restoration of the Farmington River, which had been severely polluted by various chemicals and waste products dumped into it from the tanneries, paper mills, cotton mills, sawmills, and other factories which had sprung up along its banks in the 1800s. Great progress was made during the late 1950s and early 1960s. By 1963 FRWA had seen five out of six towns which had been dis-

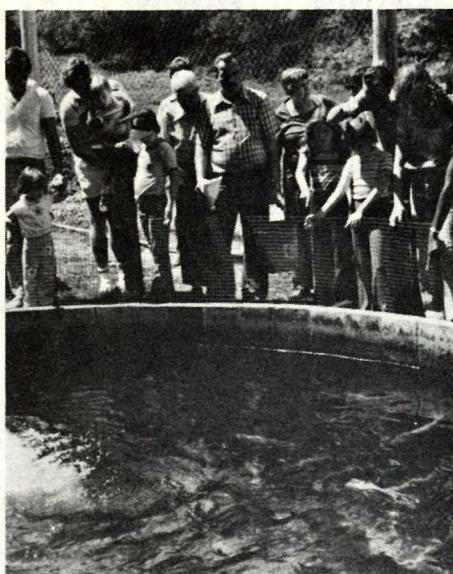


Robert Jones, chief of DEP's Fisheries Unit, receives first "Think Salmon" bumper sticker from FRWA Executive Director Ron Pfeffer, at right.

Audrey Handelman

FRWA has grown in many areas in the past few years. Their four page quarterly newsletter, for example, has expanded to eight pages. The newsletter serves an important function; the second of FRWA's goals is to educate, to increase citizen awareness of environmental issues and prepare them to make intelligent choices and decisions.

The third of FRWA's goals is to encourage and facilitate recreation in the Farmington River watershed area. This is accomplished in part by organizing and/or sponsoring such activities as "River Day," held this year on June 6 at Simsbury's Curtiss Park; frequent field trips; and the Tariffville



Rick Reichart of DEP's Burlington Hatchery (in plaid shirt, center) led a FRWA-sponsored tour of the Hatchery.

Gorge whitewater races. "We have a successful winter program series, too," says Pfeffer. "Next winter we plan to show four National Audubon Society films as a part of our program." They also offer the service of a weekly river conditions report, available over radio, in newspapers, or by calling 678-1241, and publish an illustrated guide to the Farmington River for canoeists.

In 1980, the U.S. Department of the Interior recognized FRWA as an example not only for Connecticut, but for the nation,

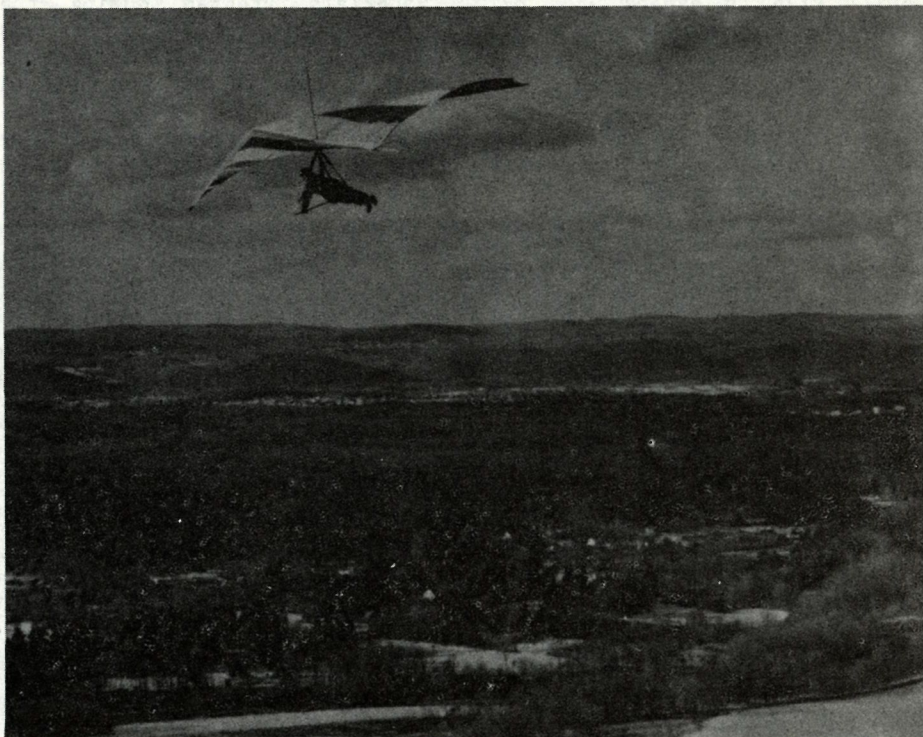
by awarding the organization its Heritage Conservation and Recreation Service Achievement Award. Pfeffer explains, "Our commitment to preserving natural resources and promoting use of recreation resources has been going on a long time. We've accomplished a lot."

There are other associations like FRWA in Connecticut; in fact they are quite common in New England and along the eastern seaboard as far south as Maryland. Some of these are staffed only by volunteers. "It's very hard to get anything done that way," Pfeffer says. "There aren't many of us here, but it helps that we don't have to rely completely on volunteers."

Today, FRWA is known as the "watchdog" of the Farmington

of these have any obligation to work with the others in a coordinated manner. FRWA has worked, therefore, to create strong conservation commissions in each of the towns in the watershed area. Of the 21 Connecticut towns, 17 now have conservation commissions.

"The watershed is a natural unit for an association like ours to concern itself with," Pfeffer points out. "It's a drainage basin--every drop of water that falls anywhere in the area will eventually end up at the mouth of the river." Organizations like FRWA, which are based on the contours of the land and on natural boundaries and processes exemplify a method of dealing with environmental problems much more effective than the more traditional



Farmington River basin from hang glider launch area at Talcott Mountain State Park.

River watershed, maintaining a constant vigil over the area to prevent environmental problems and to help remedy them if they should occur. Because the Farmington River watershed covers so large an area, it is crisscrossed by many artificial boundaries--between states, counties, towns, and individual properties. Theoretically, none

methods of designating environmental regions according to man-made boundaries. An organization like FRWA has the capacity to involve citizens in its work, to mediate and foster contacts between various groups, and thus may accomplish much which government agencies and individuals alone would be unable to do.

# FRWA's hazardous materials program spurs "planning to prevent problems"

By Audrey Handelman, Environmental Intern

The Farmington River Watershed Association's Executive Director Ronald A. Pfeffer describes the association's Hazardous Materials Program as "an ambitious project that will result in a Hazardous Materials Spill Plan to expand upon our much-used Comprehensive Oil Spill Plan prepared several years ago."

Sandra Bisset, a 1977 graduate of the University of New Hampshire who is currently enrolled at the Yale University School of Medicine's Department of Epidemiology and Public Health, directed the Hazardous Materials Program during the summer of 1981. She was employed under the Environmental Intern Program, a Boston-based

non-profit educational program which places qualified individuals in paid internships with government agencies, non-profit organizations such as FRWA, and corporations. A grant from the Ensign-Bickford Foundation of Simsbury helped to fund the internship.

Bisset's work during the three-month internship consisted

Sandra Bisset, center, with, from left, Farmington Valley Health District Director Steve Peterson, Metropolitan District Commission's Miles Messenger, and Charles Zieminski of DEP's Oil and Chemical Spills response team.



Audrey Handelman photos

of three related projects: development of a contingency plan detailing procedures necessary for rapid, effective response to hazardous-substances-related emergencies; compilation of an inventory of hazardous substances produced or transported within 21 Connecticut towns in the Farmington River watershed area; and a survey of local fire departments to determine what equipment and response mechanisms already exist for dealing with such emergencies.

The Department of Transportation has classified hazardous materials as explosives, compressed gases, flammable liquids and solids, or oxidizing, poisonous, radioactive, and corrosive materials. Associated with each classification are certain general hazardous properties such as flammability, toxicity, or splatter potential. Within each category, the list of specific materials is extensive; the list of hazardous materials known today is overwhelming -- probably over five million. Bisset's task, then, was not simple, but, she said, "It is in the interests of the FRWA to spur municipalities into becoming involved in assessing potential dangers and planning to prevent problems."

The first part of the Hazardous Materials Spill Plan outlines four phases essential to assure quick, effective handling of a spill. The first phase, notification, involves notifying fire and police departments and the DEP, and, where there is a threat to the public safety, the State Fire Marshall's Office, that a spill has occurred. By law, these parties must be informed immediately. Bisset's plan includes additional resource numbers to contact within the municipalities, such as those of local health directors, highway departments, municipal water supply companies, and conservation commissions, as well as government agencies like the National Response Center which handles incidents involving the Environmental Protection Agency and the U.S. Coast Guard.

Phase two, evaluation, is the immediate assessment of the extent of the problem. The number one priority is public safety and personnel safety. In addition, when dealing with any hazardous materials incident, especially in watershed areas, it is important to know as much as possible about the substance involved. How fast does it spread? Is it water soluble? Will it sink or float? In identifying chemicals and determining their characteristics, a service called Chemtrec, with a 24 hour-a-day toll free number, may be a valuable resource.

cleanup becomes much more serious."

In clean-up, the final phase of the four, Bisset addressed the questions of what may be done to decontaminate the area and what contractors are available to do the work. Responsibility for cleanup rests with the polluter. If the polluter is unknown or refuses to accept financial responsibility, mitigation efforts will be carried out by DEP using State and federal contingency funds.

A four-part appendix follows the main body of the



MDC workers demonstrated the use of absorbent powders to contain a contaminant in a stream.

Containment, the third phase, is the most important part of the plan, Bisset said. She included in this section a discussion of various methods for containing different types of hazardous materials. Qualified people should get to the spill site quickly to determine how further contamination can be prevented. "To protect the watershed, it is vitally important that proper containment techniques are carried out within the first hour. Once a hazardous material is dispersed in the surface or groundwater, the problem of

plan. Bisset includes a glossary defining terms anyone dealing with hazardous materials should know; a resource assistance guide which provides more detailed information on contacts listed in the notification section; an inventory of equipment resources; a guide to containment procedures specifically concerned with containment of spills into water; and additional reference materials for training purposes.

"When I'm done, I'd like to have a plan that people will use and not just stick on a

shelf," Bisset said. In its final form, FRWA's plan will be distributed to local fire and health departments and to State officials. "The plan has ended up a compilation of information from many knowledgeable persons -- DEP's Hazardous Materials Management Unit's Oil and Chemical Spill Response Team, oil spill clean-up contractors, the U.S. Coast Guard, the State Department of Transportation, and local fire departments."

Bisset improved her own qualifications for addressing such issues as containment and training by taking a five week training course given for fire departments by the DOT, which is responsible for training all fire crews in the State. She also took a course offered in Derby by Safety Systems, Inc., a Florida-based private consulting firm. "Both courses helped me immensely," she said. "The teacher of the DOT course was a wealth of information, and the other course involved a lot of hands-on activity."

The second part of Bisset's project, carried out in conjunction with the development of the Hazardous Materials Spill Plan, was an inventory of hazardous materials transported, used, and disposed of within the Farmington River Watershed area. "I had to do a lot of research for the inventory. There are just so many materials . . . the sheer magnitude of the task frustrated me," Bisset said.

Compiling a list of hazardous materials within 21 towns was a difficult and time-consuming business. However, Public Act 80-464, an act concerning the use, production, storage, and disposal of chemicals, allows public health directors to request that local industries submit lists of hazardous materials. Bisset recognized that it would be to her benefit to work closely with the health directors. If they would agree to supply her with lists of industries and the materials they produced, her job would be simpler and more manageable. "Response to my request from local health directors was

slow," she noted, "perhaps because industry was slow supplying the information to them."

"One of the most important parts of my work over the summer was to initiate pre-planning and preventative action--that's half the battle. Since I knew I wouldn't be around for much longer than three months, I wanted to try to arouse the interests of local health directors. I wanted them to learn more about the potential problems of hazardous materials within their communities and to follow up after I left."

"Bisset used three other sources for her inventory. The first was the Notification to EPA of Hazardous Waste Activities in Region I, compiled in 1980 as a part of the Federal Resource Conservation and Recovery Act. Section 3010 of RCRA requires any person who generates or transports hazardous waste to notify EPA of these activities. Bisset used the Notification to identify which of the 21 towns in the watershed area contain industries or other organizations involved in the production or transportation of hazardous wastes.

She consulted the Connecticut Manufacturing Guide (1979-1980) to determine what kinds of waste were being produced by each industry in the area. In the Directory, each industry is assigned a Standard Industrial Code (SIC) number, which tells what type of waste each produces.

Finally, Bisset used the Hazardous Waste Site Investigation Manual, which allowed her to further narrow down the types of waste produced in the watershed's 21 Connecticut towns.

"Because there are so many industries and so many hazardous materials, it would have been impractical for me to approach industries individually," Bisset said.

"The purpose of knowing what products are produced in the watershed is not to scare people, but to aid them. I want to stress the importance of a preventative approach to

hazardous materials spills and emergencies."

Bisset's third and final project, the fire department survey, involved sending questionnaires to local fire departments. In order to get a sense of what resources were presently available within each town, Bisset asked such questions as:

Does your town have emergency plans for oil spills, hazardous or radioactive materials spills, or for evacuation?

What types of products are manufactured in the community?

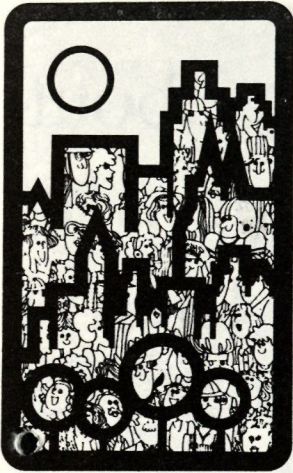
Are you aware of what types of hazardous materials are transported through the community?

Have you had training programs for handling of hazardous materials?

Do you have specific equipment available for use in oil or chemical spills?

Bisset worked closely with local fire departments to develop the survey. She spent much time on the telephone with fire chiefs and other officials, listening to their suggestions, and attended county-wide meetings of local fire departments. "Good public relations was important," she said. "I needed their help. If nothing else, I wanted to make people in the Farmington River Watershed area aware of potential problems and to initiate interest in further training. I'm pleased with the degree of support the communities have shown."

For Bisset herself, the internship has provided a means of gaining experience in the field of environmental health. "It's meant a lot to me. I feel that the issue is an important and contemporary one. What I did as director of the Hazardous Materials Program was a significant step toward protecting not only the Farmington River Watershed but toward protecting ground and surface water supplies for the future. I am very committed to what I did."



By Martina Delaney,  
Citizens' Participation Coordinator

## For Your Information

### "What's Legally Required?"

Are you a planning, zoning, conservation or inland wetland commission member who is sometimes "at sea" when reviewing land development applications? Are you concerned about preserving natural resources and avoiding environmental problems in your town but not certain how to specifically do it as a local decision-maker?

There is now a new manual which takes the mystery out of "What's Legally Required?" The manual, of the same name, is a summary of the legal requirements involved in planning, zoning, and inland wetland decisions, written in simple non-legal terms. Prepared for this year's DEP Natural Resources Center's Land Use seminars, "What's Legally Required?" is designed as an easy-to-use reference guide.

This 66-page manual is available through the Cooperative Extension Service, College of Agriculture and Natural Resources, University of Connecticut, Storrs, CT 06268, at a cost of \$2.00.

### Land Trust Service Bureau (LTSB)

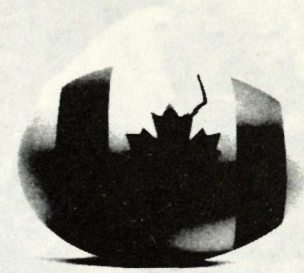
With the disappearance of the Land and Water Conservation Fund, both the State of Connecticut and municipalities will find it increasingly difficult to acquire open space parcels. One alternative local commis-

sions are encouraging is preservation activities by land conservation trusts.

In Connecticut, there are 77 land trusts -- private, non-profit organizations -- that preserve natural areas for the public. They hold and manage over 13,000 areas across the state, and their membership exceeds 13,000 persons. Most Connecticut land trusts operate within individual communities; however, there are a few regional trusts (with jurisdiction in several towns) in less populated parts of the state.

The Land Trust Service Bureau (LTSB) has been established to assist these 77 trusts and to encourage the formation of trusts in communities where none exist. The Bureau is a project sponsored by The Nature Conservancy and the Conservation Law Foundation of New England. The Bureau, whose initial project period runs until December 1982, provides technical, legal, and operational assistance to the trusts. It is currently preparing an operational handbook. In addition, the LTSB distributes timely newsletters and sponsors conferences and workshops.

Many Inland Wetland and Conservation Commissions throughout the state already enjoy a strong working relationship with their local land trusts. The Land Trust Service Bureau encourages this interaction. For additional



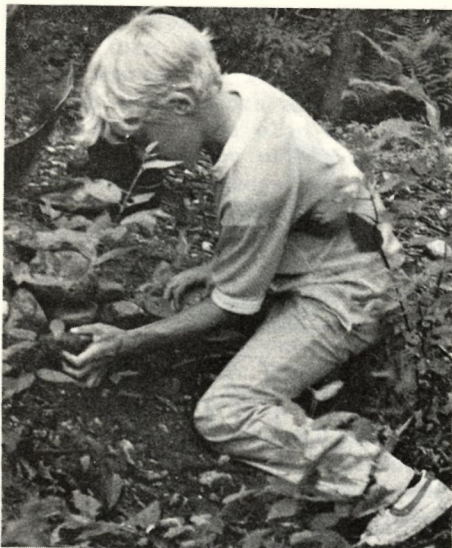
70% OF OUR  
WILD DUCKS  
ARE BORN  
IN A FOREIGN  
COUNTRY.

Most of this continent's wild ducks are born in the wetlands of Canada, which are under threat of extinction. Revenues from Federal Duck Stamps can't help because law forbids their use outside the United States. That's why Ducks Unlimited is working to preserve Canadian wetlands. Send your tax-free contribution. Because if ducks have no home, America will have no ducks.

DUCKS UNLIMITED INC.,  
P.O. BOX 66300,  
CHICAGO, ILLINOIS 60666



information on land trusts and the LTSB, please contact Suzi Wilkins, Director of the Land Trust Service Bureau, Wesleyan Station, Box MMM, Middletown, CT; phone 344-9867.



# Learning about the environment...by working on theirs!

By Audrey Handelman, Environmental Intern

Kids at the Holmes Elementary School in Darien are learning about the environment—by working on theirs!

Last spring, the students, mainly third, fourth, and fifth graders, began constructing a nature trail on a few acres of land adjacent to the school property. They worked enthusiastically and energetically, digging trenches for the "steps" made of six inch by six inch beams which would be laid into the winding path and filling cartons with wood chips to spread along the trail.

DEP's Director of Environmental Education, Steven Fish, supervised the children in these activities, as well as lending a hand when they came across a particularly well lodged rock. "Do any of you know why we're doing this?" he asked. "Why are we laying down the beams and the wood chips?"

Answers ranged from "To make it easier to walk, like going down stairs," to "To make it softer if you fall." Finally they hit upon the right answer: "To stop the dirt from getting washed away." They had learned about erosion and several methods of preventing it.

Principal Ronnie Brown, with the support of staff members, decided last fall to make use of the idle land. The Holmes School's science program includes half a year of life sciences and stresses an experiential approach to the

subject. The trail, which is located only a few minutes' walk from the main building, is expected to become a valuable part of the science program. Now that it is complete, Fish will draw up a guide to it. The guide will introduce teachers to concepts in ecology and environmental education which they can then discuss in the classroom and illustrate to the children using the trail.

The project got its start, in the fall of 1980, when Fish gave workshops in environmental education for some of the teachers. They became interested in the possibility of setting up a nature trail on the school property.

"We're immensely grateful to Steven and to the DEP," says Brown, "We could never have done it without them." Because DEP is a State organization, Fish was able to help the school design and construct the trail without requiring payment as a private firm would have.

"Environmental education is a strange business," Fish comments. "When you're dealing with young kids, explaining something like erosion, it's hard to know how many of them you're really reaching. But it's always seemed worth it to me, even if you only get through to a handful." He emphasizes, however, that effective environmental education for elementary school children must involve in-class learning as a follow-up to working outdoors. ■



Audrey Handelman photos

ADDITIONAL FERALAND IN CONNECTICUT

Additional Feraland  
of Statewide Importance

| (acres) | (percent) |
|---------|-----------|
| 15,500  | 4         |
| 45,000  | 10        |
| 39,000  | 6         |
| 12,500  | 3         |
| 23,500  | 4         |
| 26,000  | 5         |
| 9,000   | 2         |
| 20,000  | 5         |
| 100,000 | 5         |

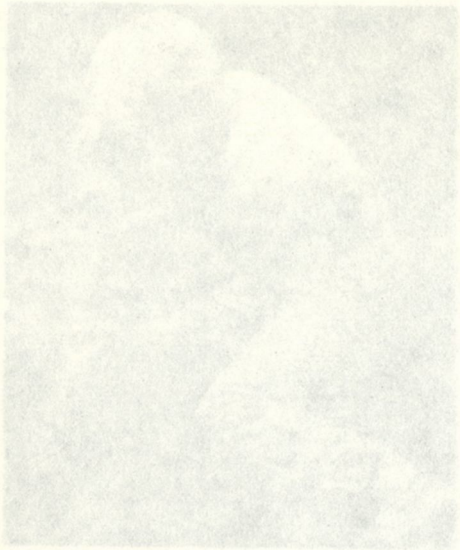
others converted irreversibly to other uses. Thus, periodic updates are needed to reflect these changes.

Important Feraland inventories are complete and published for Litchfield, Tolland, Windham, New Haven, and Hartford Counties. Those for Fairfield, Haddam, and New London Counties are in progress and completion is expected by the end of 1975. The Department of Natural Resources is currently conducting a study of the State's Feraland resources.



Steven Fish photo



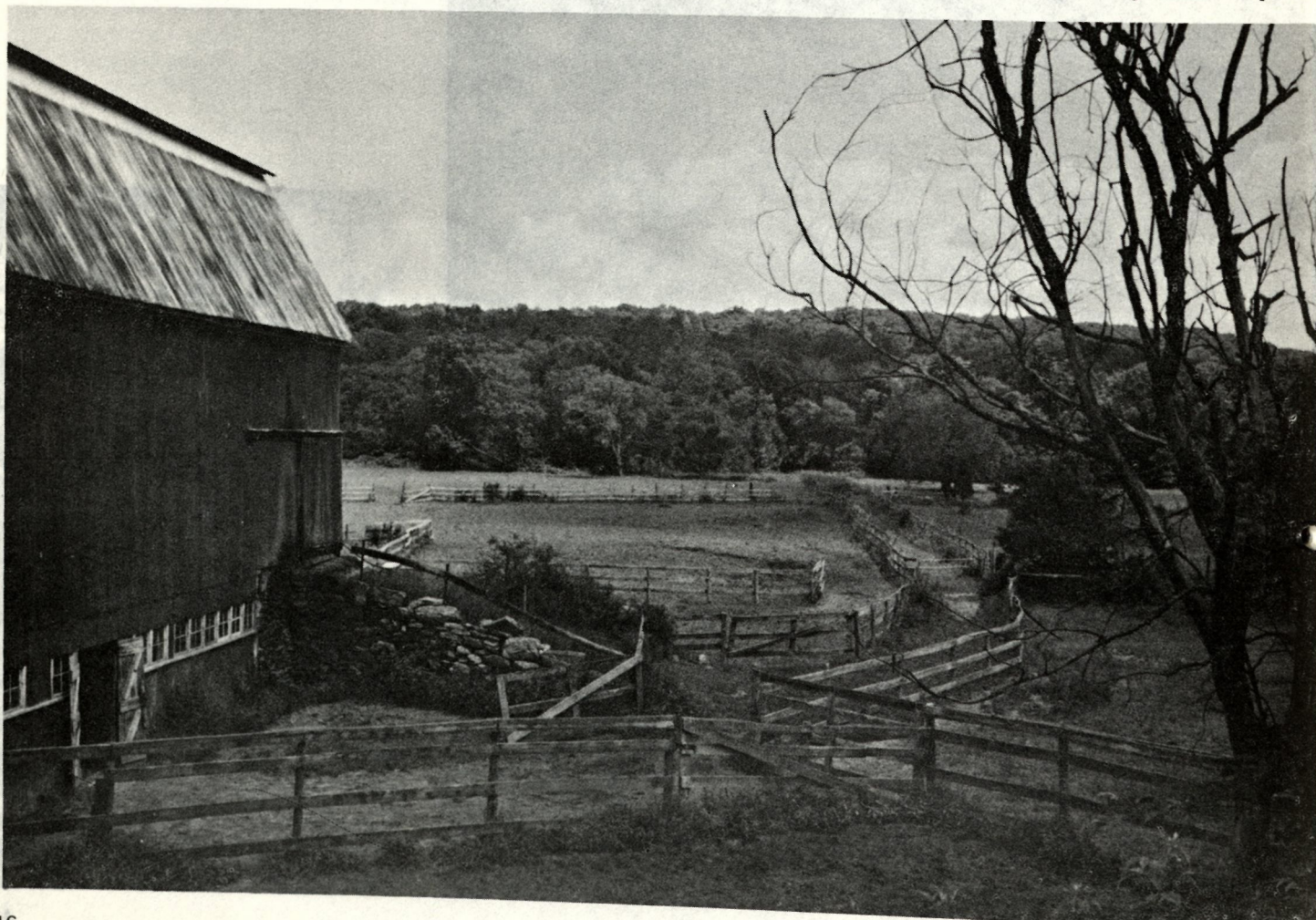


# S.C.S. inventories Important Farmlands

By Edward H. Sautter,  
State Soil Scientist,  
USDA-Soil Conservation Service

To help maintain the productive capacity of American agriculture, the U.S. Department of Agriculture - Soil Conservation Service has developed criteria and guidelines to inventory Important Farmlands.

In Connecticut, the Soil Conservation Service is making an Important Farmlands Inventory for each of the State's eight county Soil and Water Conservation Districts. The objective is to identify the location and extent of quality lands capable



Jenny Mead photo

of producing food, feed, fiber, and forage crops. This information is valuable to Connecticut in its program of preserving agricultural land. It is a tool for evaluating proposals to change land use and helps maintain a base for food production.

The criteria used for identifying Important Farmlands are based on soil properties and qualities. Source of the data is the National Cooperative Soil Survey.

Inventories of Important Farmlands in the state are made on county base maps at a scale of 1:50,000 (1 inch = 0.8 mile). The maps show, in color, areas of: (1) prime farmland; (2) additional farmland of statewide importance; (3) water; and (4) urban land.

PRIME FARMLAND includes those soils best suited for producing food, feed, fiber, and forage crops, and the land is also available for these uses. Prime farmland may be idle now or used for crops, pasture, hay, or forest. It is not in urban use or under water.

Prime farmland has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods.

ADDITIONAL FARMLAND OF STATEWIDE IMPORTANCE includes those soils, in addition to prime farmland soils, that are of statewide importance for the production of food, feed, fiber, and forage crops. The soils are wetter, have steeper slopes, or are more droughty than prime farmland soils.

Additional farmland of statewide importance can economically produce high yields of crops when properly treated and managed. If conditions are favorable, some of this land may produce yields as high as prime farmland.

The acreage and proportionate extent of Important

Table 1: EXTENT OF IMPORTANT FARMLANDS IN CONNECTICUT

| County     | Prime Farmland |           | Additional Farmland of Statewide Importance |           |
|------------|----------------|-----------|---|-----------|
|            | (acres)        | (percent) | (acres)                                     | (percent) |
| Fairfield  | 22,500         | 6         | 14,500                                      | 4         |
| Hartford   | 89,000         | 19        | 45,000                                      | 10        |
| Litchfield | 83,000         | 14        | 39,000                                      | 6         |
| Middlesex  | 26,000         | 11        | 12,500                                      | 5         |
| New Haven  | 42,500         | 11        | 23,500                                      | 6         |
| New London | 43,000         | 10        | 26,000                                      | 6         |
| Tolland    | 33,000         | 12        | 9,000                                       | 3         |
| Windham    | 36,000         | 11        | 20,000                                      | 6         |
| State      | 375,000        | 12        | 189,000                                     | 6         |

Farmlands in Connecticut are given in Table 1. Data for Windham and New London Counties are estimated. All other data are measured.

The Connecticut inventories do not constitute a designation of any land area to a specific use. Such designations are the responsibility of state and local officials. The inventories are dynamic as new areas may be developed for farming and

others converted irreversibly to other uses. Thus, periodic updates are needed to reflect these changes.

Important Farmlands inventories are complete and published for Litchfield, Tolland, Middlesex, New Haven, and Hartford Counties. Those for Fairfield, Windham, and New London Counties are scheduled for completion before the end of 1983. Requests for publications or information should be addressed to:

#### Fairfield County

Soil Conservation Service  
Fairfield Extension Center  
RD #2, Box 165A, Route 6  
Bethel, CT 06801 (743-5453)

#### Litchfield County

Soil Conservation Service  
Agricultural Center  
West Street  
Litchfield, CT 06579 (567-8288)

#### New Haven County

Soil Conservation Service  
Agricultural Center  
322 North Main Street  
Wallingford, CT 06492 (269-7509)

#### Tolland County

Soil Conservation Service  
Tolland Agricultural Center  
24 Hyde Avenue  
Vernon, CT 06066 (875-3881)

#### Hartford County

Soil Conservation Service  
Agricultural Center  
340 Broad Street  
Windsor, CT 06495 (688-4946)

#### Middlesex County

Soil Conservation Service  
Agricultural Center  
Route 9A  
Haddam, CT 06438 (345-4511)

#### New London County

Soil Conservation Service  
Agricultural Center  
562 New London Turnpike  
Norwich, CT 06360 (887-4163)

#### Windham County

Soil Conservation Service  
Agricultural Center  
Wolf Den Road  
Brooklyn, CT 06234 (774-0224)

# Recycling State's white paper saves landfill space, disposal costs, means revenues

By Diane Harrington, Student Intern, Central Connecticut State College

Connecticut, an area of continued growth and development, is rapidly running out of landfill space for the disposal of solid waste. This is one of the things that prompted Charles Kurker, Director of the Solid Waste Management Unit of the DEP, to start white paper recycling in State office buildings in 1978. A second purpose of this program was to demonstrate that government agencies, as well as businesses and industries, can carry out such a recycling effort successfully.

During 1980, its third year of operation, the program recycled in excess of 60 tons of high quality paper, getting a \$60 to \$70 per ton return for the State. Over the total three year period (January 1978 through December 1980), the program has diverted in excess of 186 tons of waste paper from the waste stream, and thus far over \$9,000 in revenue has been placed in the State's General Fund.

Kurker mentions that in addition to what is paid to the

State by the contractor, a \$10.50 per ton tipping fee is saved for each ton of paper that is recycled rather than dumped in a landfill, and transportation cost for the transfer of this waste paper to dumping sites is also saved.

The demonstration started in January 1978 with the State Office Building. It was chosen because of the large number of people working there -- the assumption being that more people waste more paper.

| DATE STARTED   | STATE BUILDING               | 1978<br>POUND TOTAL | 1979<br>POUND TOTAL | 1980<br>POUND TOTAL    |
|--|------------------------------|---------------------|---------------------|------------------------|
| January 1978   | State Office Building        | 80,000              |                     |                        |
| May 1978   | State Capitol                | 19,820              | 79,067              | 63,329                 |
| Sept. 1978   | Dept. of Health Services     | 7,600               | 2,862               | 6,361                  |
| April 1979   | 30 Trinity Street            | *                   | 19,764              | 27,930                 |
| April 1979   | 122 Washington Street        | *                   | 11,939              | 9,584                  |
| January 1980   | 80 Washington Street         | *                   | 4,939               | 6,027                  |
| January 1980   | Department of Transportation | *                   | *                   | 25,458                 |
| January 1980   | Dept. of Income Maintenance  | *                   | *                   | 11,376                 |
|  |                              |                     |                     | 7,383                  |
| 3 YR.<br>TOTAL   |                              |                     |                     |                        |
| TOTAL TONS<br>ACCUMULATED  |                              | 53.27 tons          | 59.28 tons          | 74.2 tons--186.75 tons |
| TOTAL REVENUE<br>RECEIVED  |                              | \$1,835.63          | \$3,359.67          | \$4,731.12--\$9,925.53 |
| *Not included in program   |                              |                     |                     |                        |
| 1981: Five smaller DOT office buildings have been involved in the recycling program as of April 1981, bringing the total to 13 state buildings that have white paper recycling programs. |                              |                     |                     |                        |

The program is limited to white ledger paper which represents over 60 percent of the paper accumulated in most government buildings and is the most valuable paper used in the buildings in quantities large enough to recycle. Out of the office waste paper stream, white ledger paper yields the highest financial return when it is user-segregated, exclusive of computer print-out.

After careful initial planning, the DEP set up a contract with a local market to buy the State's white paper. The contractor is responsible for supplying steel baskets and plastic desk files which are eventually purchased by the State through monthly deductions from the white paper revenues. Canvas carts are left by the contractor at the buildings, and after being filled by the maintenance staff at each building they are picked up and their paper is taken to be cleaned (paper clips and dirt removed), sorted, shredded and baled, weighed, and shipped.

When the paper reaches the secondary fiber mill the recycling process consists of de-inking and repulping the white ledger waste paper to produce writing paper, tissues, napkins, toilet paper, and shoe materials.

Before a new State building joins the program, it is surveyed and rooms for storage of the steel baskets and canvas carts are selected. The employees are then given a briefing on how the program works and what its benefits are. Equipment is distributed, and the program begins. Several rooms on each floor hold special white-paper-recycling baskets. These rooms have signs outside their doors promoting the recycling program and telling people where to put their paper.

The plastic files, which are assembled at a workshop for the handicapped, are for the convenience of the employees. They are placed on desks, and as paper accumulates, they are emptied into the recycling baskets by the employees.

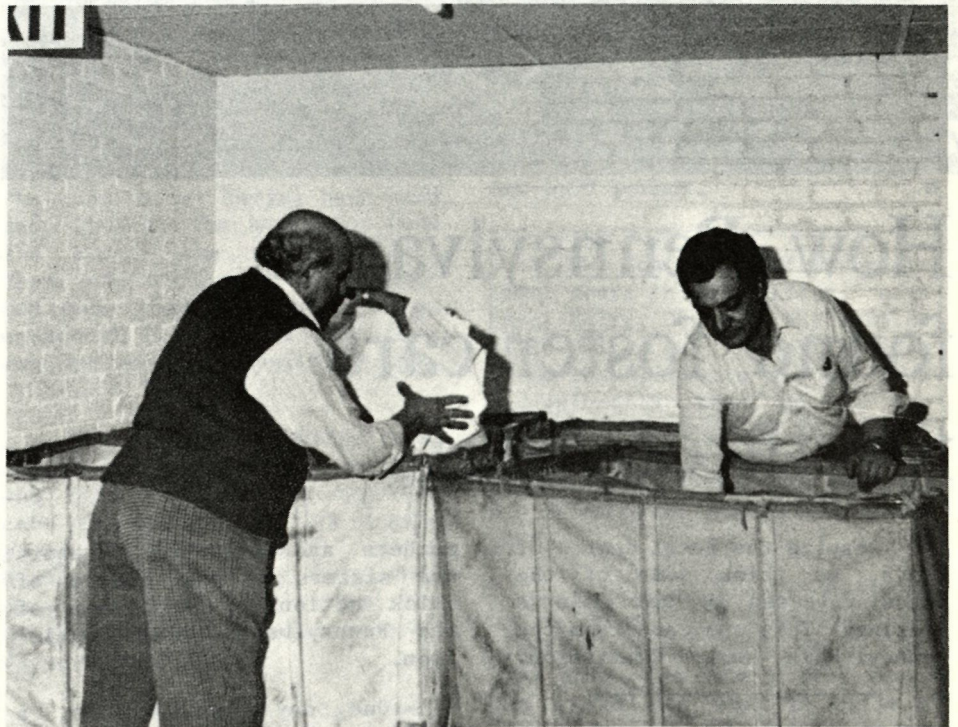
Labels are attached to the files listing the types of paper unacceptable for this program. (Prohibited materials include newspaper, magazines, paperbacks, yellow lined paper, paper towels, paper bags, cardboard, plastic binders, carbon paper, blueprints, and colored papers.) The addition of these materials drastically reduces the paper's value for only fiber of similar quality papers can be included in the recycling process.

Aside from personnel time needed to organize the program and to collect the white paper, the only costs involved consist of purchasing the steel waste paper baskets and plastic desk files from the contractor. When their cost is fully deducted from the revenues from the sale of the paper, this equipment becomes the property of the State.

From one building, the program has now grown to involve 13 State buildings in the greater Hartford area. The Capitol Building and the Department of Health Services joined the program in 1978. Two other buildings began their recycling

programs in 1979; 122 Washington Street and 30 Trinity Street. The Department of Income Maintenance, the Department of Transportation, and 80 Washington Street implemented programs in 1980. Five smaller offices of the Department of Transportation have joined the effort this year.

The success of the white paper recycling program depends on the effort and involvement of a lot of people. The program also requires cooperative efforts involving maintenance workers in each building, program coordinators for the Solid Waste Management Unit, and building administrators, to name a few. Charles Atkins of DEP's Solid Waste Unit, who has been involved in the development and expansion of the program, stresses the fact that it was set up to demonstrate that with careful planning and implementation, and with commitment, such programs can be successful. However, people must be made aware of the program on a continuing basis, so new promotional methods are being considered and suggestions are welcomed. ■



At the State Office Building in Hartford, maintenance staff members Eugene Dituccio, left, and Domenick Falletti load white paper into the canvas carts provided by the contractor.

Diane Harrington photo



serving as a nest and den for a female bear and her three newborn cubs.

## How Pennsylvania found foster care for three bears

Despite the local dearth of bears, we think some of the press releases we get deserve sharing. This one came from the Pennsylvania Game Commission.

Three abandoned young bear cubs which faced certain death have been saved from a cruel fate and are now healthy and happy with three new foster

mothers and assorted brothers and sisters as the result of quick action by employees of the Pennsylvania Game Commission.

One day last winter, a bulldozer being used in a coal stripping operation in Clearfield County, broke into an abandoned mine shaft in late afternoon. The old shaft was

When the bulldozer destroyed the nest, the female departed the scene, leaving the cubs behind. It is common for sows to desert cubs when approached by human beings, as often happens in the spring, but the sows generally return to their cubs when the humans leave. But when a female's nest is destroyed, she will not return to it or any offspring which might be in the den. Early in the year, the cubs are blind, virtually hairless, and helpless, and without human assistance, they perish.

Fortunately, the bulldozer operator realized what had happened, and notified Clearfield County District Game Protector Jack Furlong. Furlong gathered up the cubs, with a minimum of handling, and in State College, in the middle of the night, he turned the three "orphans" over to Wildlife Biologist Gary Alt.

Less than 24 hours after the nest had been destroyed, the first of the three cubs had a new mother and home. Alt put the cub on a long-handled shovel and deposited the youngster near the back of the den of a 14-

year-old female (who had weighed 331 pounds when last handled by Alt in December). The female, in a state of semi-hibernation, awoke, took a swipe at the shovel, and pulled the cub to her.

Later in the day, Alt climbed atop a four-foot pile of bulldozed logs under which a four-year-old female was snoozing. Alt attempted to drop a cub onto her, but his aim was off and the cub landed in six inches of snow, where it would have frozen to death in a few minutes. But the female heard the squealing cub, picked up the young one in her mouth, and dropped it into the nest.

After dark, the third cub was introduced to its new family. This female, a 272-pound eight-year-old, was at the rear of a 12-foot long, narrow den in a rock cavity. To attempt to pitch a fragile cub that distance would have meant certain death if its head had struck a rock. A brave or a foolish wildlifer crawling into a bear den might suffer a more horrible fate if the female became aroused.

What to do? Alt finally gave the cub a gentle toss, which only carried the youngster about halfway to the female. The thrashing, squealing cub soon caught the sow's attention, and she moved to the youngster, picked it up in her mouth, carried it to the back of the den, and dropped it into the nest.

Then she turned around to face the entrance to the den, blinked at the clicking still cameras, the grinding movie cameras, and the blinding lights, and let out a roar that promptly cleared the wildlifers from the scene.

Each of the three female bears already had her own litter of cubs before the orphaned cub was introduced to the sow. The "orphans" were placed in dens in Lackawanna, Pike, and Wayne Counties.

Introduction of "orphan" cubs to new litters is by now a

routine Game Commission operation. Every year quite a few cubs are placed with new mothers, and the extensive experiences of wildlifers in these introductions have provided enough information to assure success in virtually all undertakings of this type if care is taken.

Some of the things learned about cub introductions have been these:

Speed is extremely important; the sooner the introduction can be made, the better the chances of its success.

The older, heavier and more experienced the sow is in raising cubs, the better the chances for success.

It seems the females can't tell the difference between their own cubs and cubs from another litter and readily accept a "new" cub as one of their own. But rejection of new mothers by cubs is not uncommon, especially if the cub has been handled extensively by humans and almost always if the cub has been fed by humans.

Some older cubs (capable of sight) that have been handled and fed by humans, run right out of the den, pursuing the wildlifer, following their introductions to new mothers. The cubs, after having been handled, look to the human for food and expect the humans to be their new mothers. These handled cubs then are doomed to an unnatural life behind bars in a zoo or similar confined area.

The important things that should be known by all persons who find abandoned or orphaned cubs are these: notify a game protector immediately; don't handle the cubs any more than necessary; and, don't feed the cubs (they can go for several days without food).

Cubs normally weigh one-half to three-quarters of a pound at birth. Since these each weighed about one pound, three ounces at the time of

their introductions to new families, it is believed they were about ten days old. The cubs included two males and one female.

All winter long Alt monitored 12 female bears which had given birth to cubs. When the abandoned cubs needed a new home, Alt knew exactly where to put them. If he hadn't been monitoring the bears, he wouldn't have known where to start. Had it not been for his previous experiences in introducing cubs to new families, the most recent efforts probably would have been unsuccessful.

As the Game Commission continues to conduct research on wildlife, it becomes better able to develop solutions to wildlife problems. The trapping, tranquilizing, marking, and monitoring techniques used in studying and caring for wildlife in this particular instance have made it possible for three more black bears to be enjoyed by Pennsylvanians.

*Later last spring a followup release from Harrisburg reported that all three cubs seemed to be doing well after several months with their foster families. When recovered and weighed by Pennsylvania Game Commission wildlife managers, all were found to have grown from their original pound weights to sizes ranging from four and one-quarter to seven and one-half pounds.*

"We don't know of any resident bears in Connecticut," says Paul Herig, Chief of DEP's Wildlife Unit. But journeying bears from Massachusetts and New York occasionally turn up in the State. There have been confirmed and unconfirmed sightings, Herig says, some of them in surprising places like Danbury.

If you see a bear, or signs of a bear, the Wildlife Unit would like to hear about it. The unit even owns a bear trap, on a trailer, that it built a few years ago in response to a bear whose appearances were making campers uncomfortable.

University of Connecticut  
Institute of Water Resources  
1981-82 Seminar Series

November 18, 1981; 3:30 p.m.  
Rm. 131, School of Education  
Auditorium, Gentry Bldg., U. of  
Connecticut, Storrs  
"Precipitation and Groundwater  
Levels in Connecticut from 1951  
to 1980"; Daniel D. Meade, Senior  
Environmental Analyst, DEP Natur-  
al Resources Center.

December 16, 1981; 3:30 p.m.  
Rm. 131, School of Education  
Auditorium, Gentry Bldg., U. of  
Connecticut, Storrs  
"Application of Surface Geophys-  
ical Techniques in Water Resources  
Investigations," by F. Peter  
Haeni, Hydrologist, U.S. Geologi-  
cal Survey.

### Public Hearings

November 9, 1981; 7 p.m.  
Milford High School, 38 W. River  
St., Milford  
To consider application of The  
Promenade to discharge 80,000 gal-  
lons per day of treated domestic  
waste water and 315 cubic feet  
per second of stormwater runoff  
generated by a shopping mall to  
the Housatonic River near Fowler  
Island.

November 9, 1981; 10 a.m.  
Rm. 221, State Office Bldg.,  
Hartford  
To consider application of the  
Berean Assembly of God to install  
fill materials over approximately  
0.8 acre of inland wetland to ex-  
pand the church parking lot on  
New Haven Avenue, in Milford.

November 18, 1981; 7:30 p.m.  
Stonington Town Hall, 78 Elm St.  
To consider the application of  
Stonington Seafood Products, Inc.,  
to reconstruct a pile and timber  
pier by adding a 222' extension  
to an 8' x 100' section. Record  
of an August 13, 1981, hearing on  
this project will be reopened to  
consider modified plans which  
shift the extension approximately  
70' to the south.

November 30, 1981; 7 p.m.  
North Haven Town Hall, Conference  
Rm. 1, 18 Church St.  
To consider application of cur-  
cuit-Wise, Inc., to discharge

treated wastewaters from printed  
circuit board manufacturing oper-  
ations to the Quinnipiac River.

### Events

November 21 and 22, 1981, 10 a.m.  
- 4 p.m. HOPI BASKETMAKING  
TECHNIQUES WORKSHOP at American  
Indian Archaeological Institute,  
Route 199, Washington, CT. (En-  
rollment is limited. Register  
with AIAI's Education Department,  
203 868-0518. Tuition is \$40 for  
members, \$50/nonmembers, plus a  
\$10 materials fee.

### Permits Denied

9/4/81: Union Carbide Corp.,  
Linde Div., North Haven  
Application to place 2,900 cubic  
yards of clean fill on 12,000  
square feet of designated tidal  
wetland off Sackett Point Road in  
North Haven was denied.

9/30/81: Gaetano Prioli,  
Manchester  
Application to place fill and con-  
struct a dwelling riverward of  
established stream channel en-  
croachment lines for the Connect-  
icut River in Wethersfield was  
denied.

### Permits Issued Water Resources

#### Dams

8/28/81: New Haven Water Co.  
To repair a dam on Clarks Pond in  
Hamden. Conditions.

8/31/81: Scovill, Inc., Water-  
bury  
To repair a dam on Hitchcock Lake  
in Wolcott. Conditions.

9/4/81: The Connecticut Water  
Co., Clinton  
To repair a dam on the Mulberry  
Reservoir in Naugatuck. Condi-  
tions.

9/17/81: Hartford National Bank,  
Trust Real Estate Dept., Hartford  
To repair a dam on Upper Case  
Pond in Manchester. Conditions.

10/19/81: Arnold Way, Elmsford,  
N.Y.  
To construct a detention pond in  
Stamford. Conditions.

### Encroachments

8/13/81: West Hartford Dept. of  
Physical Services

To replace an existing bridge and  
place fill riverward of estab-  
lished stream channel encroach-  
ment lines for Trout Brook in con-  
junction with reconstruction of  
Mountain Road between Farmington  
Avenue and Braeburn Road. Con-  
ditions.

8/13/81: Baldwin Construction  
Co., Wethersfield  
To outlet storm drainage river-  
ward of established stream chan-  
nel encroachment lines for the  
Hockanum River in East Hartford  
in conjunction with a proposed  
residential development between  
Burnside Avenue and Hillside  
Avenue. Conditions.

8/13/81: City of Waterbury Bu-  
reau of Engineering  
To outlet storm drainage river-  
ward of established stream chan-  
nel encroachment lines for Steele  
Brook in Waterbury south of Bel-  
mont Street and east of Waterbury  
Avenue. Conditions.

8/13/81: Town of Wethersfield  
Engineering Division  
To fill riverward of established  
stream channel encroachment lines  
for the Connecticut River just  
north of Marsh Street for the  
proposed expansion of Village  
Cemetery. Conditions.

9/15/81: Pius X Home Assn.,  
Inc., Oakville  
To fill riverward of established  
stream channel encroachment lines  
for Steele Brook in Watertown.  
Activity consists of maintenance  
of 11,900 square feet of fill  
just north of Rt. 63 and west of  
Knight Street. Conditions.

9/24/81: Mahler Financial Ser-  
vices, Middlebury  
To construct parking, outlet  
storm drainage, and construct a  
sanitary sewer line riverward of  
established steam channel en-  
croachment lines for Steele Brook  
in Watertown north of French St.,  
and west of Westbury Park Road.  
Conditions.

10/14/81: Richard Etheridge,  
Portland  
To pipe an intermittent water-  
course and fill a wetland area  
riverward of established stream  
channel encroachment lines for  
the Connecticut River in Portland.  
Conditions.

10/15/81: Michael Gopoian, Yalesville  
To maintain existing trailer units and improve and expand an existing berm riverward of established stream channel encroachment lines for the Quinnipiac River in Wallingford at a trailer park off Rt. 150, south of Rt. 68. Conditions.

#### Structures & Dredging

8/4/81: Bruce & Johnson Marina, Branford  
To place stone riprap along the Branford River shore edge adjacent to property on S. Montowese Avenue. Conditions.

8/21/81: Charles Mannix, Clinton  
To retain and maintain a dredged basin 15' x 45', dredged to a depth of 4' below mean low water in the Indian River at Clinton, and to retain the materials removed for use as fill on property at 19 Indian Drive, Clinton. Conditions.

8/21/81: J.W. Parys, Mystic  
To construct and maintain a 12' x 3' walkway and a 7' x 8' floating dock extending 17' beyond mean high water in Pequotsepos Pond in Mystic. Conditions.

8/31/81: Harry's Marine Repair, Westbrook  
To construct and maintain a travel lift well and piers extending 25' channelward of mean high water in the Pachogue River at Westbrook. Conditions.

9/16/81: Neil Austrian, Old Greenwich  
To construct and maintain a 60' x 4' pier, a 24' x 4' ramp, and a 10' x 12' floating dock extending approximately 70' beyond mean high water into Long Island Sound at Ballwood Road, Old Greenwich. Conditions.

9/17/81: Southern New England Telephone Assistance Center, Hamden  
To bury an armored submarine telephone exchange cable in Bridgeport Harbor on the east side of the Pleasure Beach Bridge. Conditions.

9/30/81: Garnet Park Civic Assn., Madison  
To construct a stone embankment

to prevent erosion along the Neck River near Riverside Lane, Madison. Conditions.

10/5/81: Allan Howat & Mario Sapia, Jr., Old Saybrook  
To construct and maintain a 608' concrete and stone retaining wall along a manmade channel to the Connecticut River on property on Fourth Avenue Extension, Ferry Point, Old Saybrook. Conditions.

10/6/81: Hy Zaret, Westport  
To extend an existing stone groin by 15' and construct and maintain a 25' walkway and a 12' x 20' floating dock extending to 90' beyond mean high water into the Saugatuck River at Harbor Road in Westport. Conditions.

10/8/81: Carl Gliniak, Westbrook  
To retain approximately 135 linear feet of riprap and place an additional 15 cubic yards of riprap running 80 linear feet at the base of an existing seawall in Long Island Sound off Red Bird Trail in Old Saybrook. Conditions.

#### Tidal Wetlands

##### Structures & Dredging

9/25/81: Robert T. Halpin, Old Lyme  
To construct and maintain a 173' long catwalk pier, two 15' long ramps, and two 6' x 12' floating docks, extending 64' beyond mean high water into the Black Hall River off Littlefield Drive in Old Lyme and in State-designated tidal wetlands. Conditions.

#### Water Compliance

8/6/81: Land Fill Associates, Branford  
To operate and maintain a tire landfill on State Street in the Towns of Hamden and North Haven. Conditions.

8/6/81: Dr. Rose Incorporated, Madison  
To discharge 20 gallons per day of rinsewater from the manufacturing of glycerine suppositories to the ground waters of the Long Island Sound Watershed. Conditions.

8/6/81: Old Windsor Press, Incorporated, Bloomfield  
To discharge 1.5 gallons per day

of photoprocessing chemicals to the Connecticut River Watershed via Town of Bloomfield sewerage system. Conditions.

8/7/81: Waterbury Farrell, Division of Textron, Inc., Cheshire  
To discharge 7,000 gallons per day of domestic sewage to the Town of Cheshire Sewerage System. Conditions.

8/7/81: Lerner Laboratories, New Haven  
To discharge 250 gallons per day of process rinse and cooling water to City of New Haven Sewerage System. Conditions.

8/13/81: Geos Corporation, Stamford  
To discharge 9,000 gallons per day of washwaters from the manufacturing of dimethyl formamide to the City of Stamford Sewerage System. Conditions.

8/13/81: Broadmoor Housing, Inc., Stamford  
To discharge domestic sewage to the City of Stamford Sewerage System. Conditions.

8/19/81: Vernon Associates, Enfield  
To discharge 38,700 gallons per day of domestic sewage to the Town of Vernon Sewerage System. Conditions.

8/24/81: Auto Swage Products, Inc., Shelton  
To discharge 131,000 gallons per day of treated metal finishing wastewaters and cooling water to the Housatonic River. Conditions.

8/25/81: Century Resources Bridgeport Terminal, Inc., Bridgeport  
To discharge stormwater from the petroleum marketing terminal operation to Long Island Sound - Bridgeport Harbor via Johnson's Creek. Conditions.

8/31/81: Norwalk Powdered Metals, Inc., Norwalk  
To discharge 50 gallons per day of settled tumbling area wastewater to the City of Norwalk Sewerage System. Conditions.

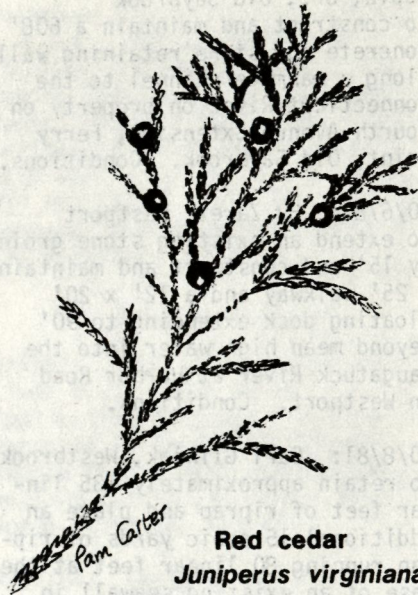
8/31/81: Mathieu Ford Sales, Inc., Putnam  
To discharge 200 gallons per day of auto washwater to the Town of Putnam sanitary sewer system. Conditions.

Red cedar, along with such plants as gray birch, black cherry, and sumac, is one of the early pioneer trees or shrubs that may invade an old field or pasture if the vegetation is not cut regularly. Much depends on chance as to what mixture of species will be present. This condition will later give rise to more shade tolerant trees if the area is not distributed. All of this is a part of a natural process called "plant succession."

Red cedar appears as a shrub or tree which is shaped like a pyramid with many branches near to the ground rather than a single trunk with an overhanging crown. It is a tree that is found growing commonly in poor soil but that grows best in limestone country. This tree has two kinds of needles. The needles of young twigs are sharp and prickly

## Trailside Botanizing

by G. Winston Carter



Red cedar  
*Juniperus virginiana*

while the older needles are scalelike.

What appear as blue berries on the red cedar are really tiny cones that have scales which have become waxy and fused together. These pistillate (female) cones appear more cone-like when they are developing. When mature, they look like berries. The one to three seeds in each berry-like structure are carried by over 50 species of birds, including the pheasant and mourning dove. The birds pass the seeds through their digestive canal unchanged, and they are thus dispersed, quite often along fences.

An oil derived from the needles of the red cedar has been used as a perfume, and a flavoring has been obtained from the cones or berries. Its wood is well known for its use as a lining for closets and for cedar chests.

## DEP Citizens' Bulletin

State of Connecticut  
Department of Environmental Protection  
State Office Building  
Hartford, Connecticut 06115

SECOND CLASS POSTAGE PAID  
AT HARTFORD, CONNECTICUT